

Aircraft Avionics & Flight Control Systems Market Forecasts to 2034 - Global Analysis By Component (Hardware, Software and Services), System Type, Technology, Application, End User and By Geography

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Abstracts

According to Statistics MRC, the Global Aircraft Avionics & Flight Control Systems Market is accounted for \$19.7 billion in 2026 and is expected to reach \$31.7 billion by 2034 growing at a CAGR of 6.1% during the forecast period. Aircraft Avionics & Flight Control Systems comprise sophisticated electronic, computing, and control technologies that enable aircraft navigation, communication, monitoring, guidance, and maneuvering. They combine sensors, onboard computers, cockpit displays, communication networks, and control mechanisms to enhance operational safety and efficiency. Advanced platforms increasingly use digital architectures, automation, intelligent software, and connected technologies. Flight control systems regulate stability, movement, and aircraft response using electronic or fly-by-wire solutions, providing accurate handling throughout varying flight conditions while addressing the operational needs of commercial aviation, defense aircraft, and unmanned aerial platforms.

According to IATA, global passenger demand measured in revenue passenger kilometers (RPKs) increased 5.3% in 2025 compared with 2024, while available seat kilometers increased 5.2%, supporting continued expansion of commercial aviation activity and demand for aircraft systems.

Market Dynamics:

Driver:

Rising demand for advanced aircraft automation

Increasing aircraft automation is supporting demand for sophisticated avionics and flight-control technologies. New-generation aircraft are incorporating integrated electronic systems, computerized flight controls, automated navigation, and advanced cockpit platforms to enhance efficiency while lowering pilot workload. Aircraft manufacturers and operators are adopting these solutions to improve accuracy, safety, and situational awareness during flight operations. Growing use of automated functions across commercial aviation, defense platforms, and unmanned aircraft is creating opportunities for advanced avionics and control technologies, encouraging continued investment in reliable, intelligent, and highly integrated aircraft systems globally.

Restraint:

High development and integration costs

Significant development and integration expenses can limit growth in the Aircraft Avionics & Flight Control Systems Market. Modern systems depend on complex processors, sensors, software, communication technologies, and control components that require considerable investment in engineering and testing. Incorporating advanced equipment into established aircraft architectures can add further costs and technical challenges. Extensive certification, validation, and safety procedures are also necessary before systems enter service. These requirements may extend development timelines and create barriers for smaller manufacturers, potentially slowing the adoption of sophisticated avionics and flight-control solutions.

Opportunity:

Integration of artificial intelligence and advanced automation

Artificial intelligence and sophisticated automation are creating new opportunities for the Aircraft Avionics & Flight Control Systems Market. AI-based technologies can enhance flight management, detect system abnormalities, support predictive maintenance, and provide improved operational awareness. Machine learning can analyze extensive aircraft data, enabling faster responses and more efficient operations. Increasing interest in autonomous aviation is encouraging development of intelligent avionics, adaptive flight-control technologies, and advanced computing architectures. These developments can expand applications across commercial aircraft, military platforms, unmanned aerial vehicles, and emerging aviation systems worldwide.

Threat:

Supply chain disruptions and component shortages

Disruptions across global supply chains can pose challenges to the Aircraft Avionics & Flight Control Systems Market. Advanced avionics require specialized semiconductors, processors, sensors, communication equipment, and other components that may come from limited sources. Geopolitical developments, factory interruptions, logistics constraints, and component shortages can create procurement delays and increase manufacturing expenses. Longer sourcing timelines may affect aircraft production and modernization programs. Persistent supply uncertainties could consequently disrupt delivery schedules, delay avionics upgrades, and make timely implementation of advanced flight-control technologies more difficult for industry participants.

Covid-19 Impact:

The COVID-19 pandemic disrupted the Aircraft Avionics & Flight Control Systems Market through reduced air travel, delayed aircraft deliveries, and lower aviation spending. Airlines postponed fleet expansion and modernization projects amid falling passenger demand, affecting avionics procurement. Production interruptions and supply-chain challenges also created component shortages and extended delivery timelines. As aviation activity gradually recovered, aircraft deliveries, fleet renewal, and modernization investments resumed. Greater emphasis on operational efficiency and digitally enabled aircraft systems subsequently supported renewed demand for advanced avionics and sophisticated flight-control technologies across the aviation sector.

The hardware segment is expected to be the largest during the forecast period

The hardware segment is expected to account for the largest market share during the forecast period because physical components provide the core infrastructure for aircraft avionics and flight-control systems. It encompasses flight computers, cockpit displays, sensors, navigation and communication equipment, control units, and other electronic components essential for aircraft functionality. Ongoing aircraft upgrades, modernization programs, technological integration, and replacement of older equipment continue to support demand for advanced hardware solutions across commercial aviation, defense platforms, and unmanned aircraft applications.

The defense forces segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the defense forces segment is predicted to witness the highest

growth rate as military aviation increasingly adopts advanced avionics and flight-control technologies. Defense organizations are modernizing aircraft with improved navigation, communication, surveillance, electronic warfare, mission-management, and control systems to strengthen operational capabilities. Rising deployment of unmanned aerial vehicles, next-generation combat aircraft, and interconnected defense platforms is further increasing requirements for sophisticated onboard technologies. These modernization activities are creating expanding opportunities for advanced avionics and flight-control solutions across military aviation and defense applications worldwide.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, driven by its strong presence across commercial aviation, defense, aerospace manufacturing, and supporting infrastructure. The region benefits from established aircraft producers, technology suppliers, airlines, and military organizations, creating sustained requirements for advanced avionics. Ongoing aircraft modernization and development of sophisticated platforms further reinforce regional demand. According to the Aerospace Industries Association, the U.S. aerospace and defense industry recorded \$988.6 billion in sales during 2025, demonstrating the scale of its aerospace ecosystem.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by expanding aviation activity, fleet development, and modernization programs. Increasing aircraft demand is encouraging adoption of sophisticated aviation technologies throughout the region. According to Airbus, Asia Pacific is expected to require 19,560 new passenger aircraft during the next two decades, accounting for 46% of worldwide demand. Rising passenger traffic, expanding airline operations, and greater use of connected aircraft technologies are supporting demand for advanced avionics and flight-control solutions.

Key players in the market

Some of the key players in Aircraft Avionics & Flight Control Systems Market include Honeywell International Inc., RTX Corporation, Thales Group, Safran SA, General Electric Company (GE), L3Harris Technologies Inc., BAE Systems PLC, Northrop Grumman Corporation, Moog Inc., Parker Hannifin Corporation, Teledyne Technologies Incorporated, Garmin Ltd., Curtiss-Wright Corporation, Astronics Corporation,

TransDigm Group, Woodward, Avidyne Corporation and FreeFlight Systems.

Key Developments:

In June 2026, L3Harris Technologies said it is using its global scale and local partnerships to deliver tailored support for NATO nations. The company said it aims to provide capability ahead of need as European countries respond to heightened threat signals from adversaries. The company said effective deterrence requires capabilities that are resilient in all operational environments and interoperable across echelons, domains and coalitions.

In December 2025, Honeywell International Inc. has been awarded a \$58.79 million contract modification from the U.S. Department of War for work related to the automotive gas turbine 1500 engine platform. The modification, identified as P00026 to contract W56HZV-20-D-0062, is for program services and systems technical support engineering services. This latest award increases the total cumulative value of the contract to \$2.69 billion.

Components Covered:

Hardware

Software

Services

System Types Covered:

Flight Control Systems

Avionics Systems

Navigation Systems

Communication Systems

Surveillance & Monitoring Systems

Power & Display Systems

Technologies Covered:

Analog Systems

Digital Systems

Fly-by-Wire Systems

Automatic Flight Control Systems

Satellite-Based Navigation Systems

Applications Covered:

Commercial Aircraft

Military Aircraft

Business Jets

Helicopters

Unmanned Aerial Vehicles (UAVs)

Spacecraft

End Users Covered:

OEMs (Original Equipment Manufacturers)

Airlines

Defense Forces

Space Agencies

MRO Providers

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

Competitive Benchmarking

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